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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,167	08/19/2003	Martinus Hendricus Hendricus Hoeks	081468-0305463	3594

909 7590 03/17/2005

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EXAMINER	
NGUYEN, HUNG	

ART UNIT	PAPER NUMBER
2851	

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/643,167	HOEKS ET AL.
	Examiner	Art Unit
	Hung Henry V. Nguyen	2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12 and 30-40* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-12 and 40* is/are rejected.

7)☒ Claim(s) *30-39* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 40 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 40 recites the broad recitation "a conductive layer....not configured to be in contact with the object", and the claim also recites "conductive layer on the surface in contact with the object" which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-12 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamagawa et al (U.S.Pat. 5,777,838) in view of Logan et al (U.S.Pat. 6,754,062).

With respect to claims 1-12, and 40, Tamagawa et al (figure 1) discloses an electrostatic chuck for attracting an object (W) comprising: a dielectric member (12), the side of the dielectric member facing the object (W) provided with a plurality of pins (28) wherein the thickness of the dielectric member is 0.2-0.4mm (see col.1, lines 55) and the surface area of the pins in contact with the object is less than 4% of the total area of the dielectric member (as clearly illustrated from the figure 1 of Tamagawa) and the pins projects 0.02mm from the surface of the dielectric member (see col.5, lines 36), the pin is about 0.8mm in diameter (see col.5, line 36) and the pins (28) are 3mm apart (see col.5, line 38). Thus, Tamagawa discloses an electrostatic chuck used in a lithographic device and comprising substantially all of the basic features of the instant claims. Tamagawa specifically teaches that the electrostatic chuck attracts a wafer using Coulomb force and the Johnsen Rahbek effect (see col.7, lines 64-67) but Tamagawa does not expressly disclose a non-metallic conductive layer formed on the surface of the plurality of pins, the conductive layer is in contact with the object and has a specific resistivity less than 10

Ωm. Logan et al (figure 1) teaches an electrostatic chuck for securing workpieces and having a top surface with a non-conductive layer having a specific resistivity less than 10Ωm (see col.3, lines 10-15). In view of such teachings, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the teachings of Tamagawa et al and Logan et al to obtain the invention as specified in claims 1-12 of the present application. It would have been obvious to a skilled artisan to utilize a non-metallic conductive layer having a specific resistivity less than 10Ωm, as suggested by Logan et al on the surface of plurality of pins in contact with the object of Tamagawa. The purpose of doing so would have been to maintain the electrostatic charge without significant eddy current losses and to reduce the Johnsen-Rahbek effect whereby the clamping force for holding the object is greatly improved.

Allowable Subject Matter

6. Claims 30-49 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record does not specifically disclose the combination of a chuck for holding an object by electrostatic force, comprising among other features, an electrode as well as a sensor or controller with particular functions, as recited in the instant claims of the present invention.

Response to Amendment/Amendment

8. Applicant's amendment filed 2/23/2005 has been entered. Claims 30-40 have been added. Applicant's arguments with respect to prior art of record have been carefully reviewed but they are not found persuasive. Applicant argues that the combination of Tamagawa and Logan fails suggests putting a low resistivity layer in contact with the object. Applicant agues that a different low resistivity conductive layer 18 in Logan et al disposed on the dielectric base but that is not in contact with the object. The Examiner respectfully disagrees with the applicant since the rejection here is made under 35 U.S.C 103(a) and the combination of Tamagawa and Logan meets all of the limitations as broadly claimed. For example, Logan teaches the side of the dielectric member (12) facing the object (22) with a plurality of pins (14) having a conductive layer (18) on the surface in contact with the object (22) (as clearly illustrated in figure 1A). Logan also suggests using the conductor layer having a resistance about 10 to 1000 Ohm.cm (see col.3, lines 9-10) and also it has been held that where the general conditions of a claims are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

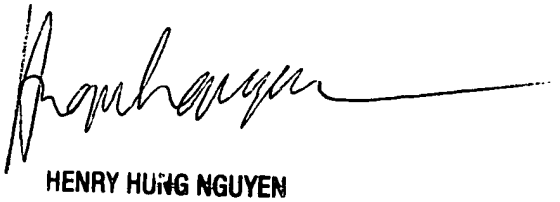
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Henry V. Nguyen whose telephone number is 571-272-2124. The examiner can normally be reached on Monday-Friday (First Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on 571-272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



HENRY HUNG NGUYEN
PRIMARY EXAMINER

hvn
3/10/05